Sony International (Europe) GmbH

Abstract

Interface link layer device to build a distributed network

An interface link layer device (1) of an interface which allows the interconnection of different networks to build a distributed network according to the present invention routes complete data packets directly to another interface link layer device (1) that serves the destination via uplink means (10, 11, 12, 13, 14, 17) to accept a data packet from a first data bus (2) that has a predetermined destination on a second data bus and to transmit it via said transmission path (3) to said other interface link layer device (1), and downlink means (20, 21) to output data packets received via said transmission path (3) from one other interface link layer device (1) to a predetermined destination on the first data bus (2). Furtheron, the interface link layer device according to the present invention introduces the concept that not all packets have to be transmitted via the interface on basis of an appropriate acknowledge code and response packet generation of an acknowledge/response means (18, 19) included in the interface link layer device. The present invention is in particular applicable to build up a disrtibuted network on basis of several IEEE 1394 networks that are interconnected via an interface consisting of a coaxial cable.

(Fig. 1)